



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,520	03/03/2005	Matthias Schulist	P16105-US1	8324
27045	7590	01/09/2008	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			NGUYEN, HAI V	
			ART UNIT	PAPER NUMBER
			2618	
			MAIL DATE	DELIVERY MODE
			01/09/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/526,520

Applicant(s)

SCHULIST ET AL.

Examiner

Hai V. Nguyen

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to ^{application} communication(s) filed on 03 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/03/2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/3/05; 5/26/06.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to the application filed on 03 March 2005.
2. Claims 1-16 were cancelled.
3. Claims 17-30 are presented for examination.

Drawings

4. The drawings 7, 8 are objected to under 37 CFR 1.84(o) because they lack suitable descriptive legends.
5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities: The analyzer 54 described in specification in par. [0080] is not shown in any of the figures.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 27-29 are rejected under 35 U.S.C. 101 because the claims 27, 28, 29 recite the "a first determination unit", "a second determination unit", "a modulator", "an analyzer", "a derivation unit" elements, which when read in light of specification amounts to nothing more computer readable medium. See MPEP 2106(IV)(B)(1).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 17-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Baker et al. US 2001/0038619 A1 in view of **Gustafsson et al. US patent# 6,643,275**

B1.

11. As to claim 17, Baker discloses a method of requesting access to a node (BS) of a wireless communications network ([0022], [0023]), comprising the steps of:

a) determining information about a transmission path (*initial transmit power of Common*

Art Unit: 2618

Pilot Channel) within the network ([0002]-[0004]);

b) determining an identification code based on the determined transmission path information, wherein previously an association between identification codes and transmission path information has been established and generating an access request signal from which transmission path information may be derived (*Baker, the mobile station uses as the transmission of path information to the base station (BS) an indication of the measured downlink path loss ([0025]-[0028]), such that the Access Preamble (AP) in an access request signal (the RACH uplink channel) is coded with one of a plurality of different signature combinations ([0032]) for every predetermined different range of measured power of the DL channel (e.g., CPICH). Hence, an association between id codes (signatures) and path information (downlink path loss) is established*).

However, Baker does not explicitly disclose id codes used to differentially identify the requesting network component (UE) from other network components (UE) and modulating the determined identification code onto the an access request signal from which transmission path information may be derived.

Gustafsson discloses a Random Access Scheme for CDMA or WCDMA communication system (*col. 1, lines 14-21*) and the access preamble contains a signature that is used to differentially identify the mobile station attempting to get access to the network and as the name "signature" suggested, providing an identification information of the mobile station (*Fig. 1, col. 2, lines 30-49*) for the purpose of avoiding collisions.

Art Unit: 2618

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Baker-Gustafsson** as applied to claim 17 above, and further in view of **Hwang et al. US 2001/0026543 A1**.

14. As to claims 18, 19, Baker-Gustafsson does not explicitly disclose analyzing an access control signal that is received in response to the access request signal and that includes access control information (AI), wherein the access control signal simultaneously includes access control information (AI) for a plurality of network components (UE) and wherein the access control information (AI) for each network component (UE) is associated in the access control signal with an individual identification code.

Hwang discloses the UTRAN recognizes receipt of the 3 CD_Ps and examines whether the CPCHs requested by the UEs are available in response to the access request signal AP (*table 5, AP number in first column, [0262]*), and transmits three channel allocation messages through the access control signal (*e.g., the CA_ICH*) including the ACKs to CD_ICH#2, CD_ICH#6 and CD_ICH#9 as shown in table 5 column 4 (*Hwang, figures 13, table 5, [0264]-[0266]*).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Hwang's teachings of the

Art Unit: 2618

access control signal CA-ICH including access control information CD_ICHs (*Hwang, [0264]-[0265]*) with the teachings of Baker-Gustafsson, for the purpose of preventing unnecessary channel access by the UE and a waste of the channel resources and efficiently and flexibly allocation of the CPCH (*Hwang, [0030], [0249]*).

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Baker-Gustafsson-Hwang** as applied to claims 17-19 above, and further in view of **Karna et al. US patent # 6,594,248 B1**.

17. As to claim 20, Baker-Gustafsson-Hwang does not explicitly disclose, wherein the access control signal is subjected to an interference canceling step which includes subtracting from the access control signal a compensation signal relating to access control information (AI) that is not associated with the identification code determined in step b).

Karna discloses "*Interference cancellation is performed at the base station according to the signature sequence (104) of the preamble (100) of the received random access signal, such that at least the interference caused by the received data part (102) is eliminated from at least one other received signal*" in order to improve detection (*Karna, Abstract*).

Art Unit: 2618

18. As to claim 21, Baker-Gustafsson-Hwang-Karna discloses, wherein the access request signal including the identification code determined in step b) is transmitted repeatedly using transmit power ramping (*Hwang, Fig. 2, the AP 213 is transmitted to the UTRAN at initial transmission power set by the UE. In figure 2, if there is no response from the UTRAN within a time 212, the UE retransmits the AP represented by the AP 215, the higher power level transmission. The number of retransmissions of the AP and the waiting times are set before a process for acquiring the CPCH channel is started ([0018])*).

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gustafsson** in view of **Hwang et al. US 2001/0026543 A1**.

21. As to claim 22, Gustafsson discloses a method comprising the steps of: a) receiving an access request signal onto which an identification code has been modulated, the identification codes differentially identifying the request network component (UE) from other network components (UE) (*the base station detects a mobile station attempting a random access request having an access preamble (Abstract)*);

However, Gustafsson does not explicitly disclose b) analyzing the identification code to derive a transmit power level therefrom, wherein previously an association

Art Unit: 2618

between identification codes and transmit power levels has been established; c) transmitting an access control signal including access control information (AI) at the transmit power level derived in step b).

Hwang discloses the UTRAN recognizes receipt of the 3 CD_Ps and examines whether the CPCHs requested by the UEs are available in response to the access request signal AP (*table 5, AP number in first column, [0262]*), selects the CD_P can be a receiving power level of the CD_P received from the UTRAN (*Hwang, [0018]-[0019]*) and transmits three channel allocation messages through the access control signal (*e.g., the CA_ICH*) including the ACKs to CD_ICH#2, CD_ICH#6 and CD_ICH#9 as shown in table 5 column 4 (*Hwang, figures 13, table 5, [0264]-[0266]*).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Hwang's teachings of the access control signal CA-ICH including access control information CD_ICHs (*Hwang, [0264]-[0265]*) with the teachings of Baker-Gustafsson, for the purpose of preventing unnecessary channel access by the UE and a waste of the channel resources and efficiently and flexibly allocation of the CPCH (*Hwang, [0030], [0249]*)

22. Claims 23-24 have similar limitations of claims 18-19; therefore, they are rejected under the same rationale as in claims 18-19 above.

23. As to claim 25, Baker-Gustafsson-Hwang discloses, wherein the access control signal simultaneously includes access control information (AI) for a plurality of network components (UE) which are requesting access to the node (BS) and wherein the

Art Unit: 2618

transmit power level for the access control signal is derived and adjusted individually for each network component (UE) which requests access (*Hwang, [0024]*).

24. As to claim 26, Baker-Gustafsson-Hwang discloses, wherein the identification code is selected out of a predefined set or range of identification codes (*Hwang, selecting the CD_P can be a receiving power level of the CD_P received from the UTRAN, [0018]-[0019]*).

25. As to claim 27, Baker-Gustafsson-Hwang-Karna discloses a network component (UE) comprising: a first determination unit (*Baker, Fig. 1, elements 112, 118, [0010], [0018]*) for determining information about a transmission path within the network; a database (*Karna, Figs. 4, 5, signature means 400, 500, col. 4, line 66 – col.5, line 39*) including data associating identification codes and transmission path information, wherein said identification codes differentially identify the requesting network component from other network components; and a second determining unit (*Baker, Fig. 1, elements 112, 118, [0010], [0018]*) for determining, in dependence on the determined transmission path information, an identification code to be included in an access request signal from which transmission path information may be derived.

26. As to claim 28, Baker-Gustafsson discloses a modulator for modulating the selected identification code onto a signal to generate the access request signal (*Gustafsson, col. 6, lines 13-21*); and a transmitter (*Baker, element 114*) for transmitting the access request signal.

27. As to claim 29, Baker-Gustafsson-Hwang-Karna discloses the network component (BS) comprising:

a database (*Gustafsson, Fig. 6, a pool of RAKE receiver units 108, col. 8, line 50 - col. 9, line 14*) including data associating identification codes from which transmit power information may be derived, wherein said identification codes differentially identifying the requesting network component from other network components;

an analyzer (*Hwang, figure 13, table 5, [0262], [0264]-[0266]*) for analyzing the identification code included within a received access request signal with respect to the transmit power information associated with the identification code;

a derivative unit (*Hwang, figure 19, elements 1920-1933, [0487]-[0490]*) for deriving from the transmit power information obtained by the analyzer a transmit power level for an access control signal.

28. As to claim 30, Baker-Gustafsson-Hwang-Karna discloses a receiver (*Baker, Fig. 1, element 104*) for receiving the access request signal onto which the identification code has been modulated; and a transmitter (*Baker, Fig. 1, element 104*) for transmitting the access control signal at the transmit power level derived by the derivation unit, wherein the access control signal includes access control information and, preferably, the identification code which has been modulated onto the received access request signal

29. Further references of interest are cited on Form PTO-892 which is an attachment to this action.

30. Moulsey et al. patent # 7,174,183 B2 discloses enabling a mobile station to transmit a preamble to the base station and after successful receipt of the preamble, the base station transmits a control channel including power control information to instruct

Art Unit: 2618

the mobile station to adjust the output power of its transmitter at a sufficient power for the message to be received successfully by the base station while minimizing interference generated by the transmission (Abstract).

31. Yi et al. patent # 7,058,038 B2 discloses the mobile station can transmit a collision detection preamble for preventing channel collision to the system by mapping with a specific scrambling code set and the system can select a scrambling code from a scrambling code set designated by the collision detection preamble and can map the selected scrambling code with the channel assignment (Abstract).

32. Parsa et al. patent 6,507,601 B2 discloses a collision mechanism when mobile stations attempt to establish links with a base station by providing a start of message indicator on the downlink channel corresponding to the desired uplink channel. the utilization of this sequence (e.g., message indicator), to eliminate mistaken transmission over an intended uplink channel by a mobile station that has misinterpreted access-related signals regarding another channel as an acknowledgement with regarding to its accessing of the intended channel (col. 3, line 66 - col. 4, line 9).

Art Unit: 2618

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai V. Nguyen whose telephone number is 571-272-3901. The examiner can normally be reached on 6:00-3:30 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hai V. Nguyen
Examiner
Art Unit 2618



MATTHEW ANDERSON
SUPERVISORY PATENT EXAMINER